ARMS CONTROL AGREEMENTS

SYNOPSES

February 2007
Order No. 408P

READINESS DTIRP THROUGH AWARENESS

This pamphlet was prepared for the Defense Treaty Inspection Readiness Program (DTIRP) to promote ***Readiness Through Awareness*** at Department of Defense (DoD) and defense contractor facilities potentially impacted by the verification activities associated with implementing arms control treaties and agreements.

The pamphlet contains concise, comprehensive synopses of relevant arms control treaties and agreements and is designed to serve as a handy reference tool for facility managers, treaty compliance officers, and other arms control treaty implementers.

Additional copies of this pamphlet, as well as other materials about arms control security and treaty implementation can be obtained by contacting the DTIRP Outreach Program Coordinator or by downloading products and information directly from the DTIRP Website at: http://dtirp.dtra.mil.

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INTRODUCTION

The United States is party to arms control treaties and agreements, and participates in negotiating new treaties that support our national security interests. To verify treaty compliance, some treaties allow treaty partners to conduct on-site inspections or imaging overflights in the United States. These activities can create unique security challenges at Department of Defense and defense contractor facilities. For this reason, it is important for facility staff and treaty implementers to be aware of the provisions and implementation status of treaties that could, potentially, affect U.S. facilities.

This pamphlet provides a synopsis of individual current and emerging arms control treaties, as well as of certain legacy treaties that have helped to shape the current arms control treaty environment. Each synopsis outlines the treaty's purpose, background, entry into force status (some have not yet entered into force), and the number of States Parties or signatories. Most important, each synopsis also describes the treaty's compliance verification regime, potential facility impacts, and current treaty activities. The numbers of inspections conducted to date are also included, when applicable.

Unless otherwise stated, the information in this pamphlet is current as of February 2007.

For the latest up-to-date information, go to the Treaty Synopses section of the Treaty Information Center on the DTIRP website at: http://dtirp.dtra.mil/TIC/synopses.cfm.

BIOLOGICAL WEAPONS CONVENTION

PURPOSE AND BACKGROUND

Entry into Force
March 26, 1975

Signatories/ Parties
155 States Parties, 16 signatories have not ratified

Selected Members
United States and Russia

Selected Nonmembers
Egypt, Israel, Somalia and Syria

The Biological Weapons Convention (BWC) [long title: Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction] prohibits its States Parties from developing, producing, stockpiling, acquiring or retaining:

- biological agents or toxins of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes; and
- weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.

The BWC obligates Parties to destroy such material within 9 months of entry into force, but permits defensive biological research.

Potential Facility Impacts

Key Verification Measures

The BWC contains no compliance verification provisions. The Convention only requires States Parties to hold a Review Conference (RevCon) every 5 years to discuss implementation issues and to draft measures strengthening compliance. During the Second RevCon in 1986, the States Parties agreed to establish confidence-building measures such as annual data exchanges, information sharing and joint research projects. In 1994, voluntary confidence-building measures were introduced and in 1997, many States Parties began submitting voluntary declarations on their biological activities to the United Nations.

At the Third RevCon in 1991, the States Parties established a group of governmental verification experts (VEREX) to identify and examine potential verification measures from a scientific and technical perspective. The resulting VEREX Report was produced in September 1993, identifying 21 potential verification measures.

The States Parties convened a Special Conference in September 1994 to consider the VEREX Report's recommendations, and established an Ad Hoc Group (AHG) to negotiate and develop a legally binding protocol to enhance confidence in treaty compliance. The AHG was mandated to conclude its negotiations before the Fourth RevCon, to be held in November 1996, or later at a special conference.

At the 24th session of the Ad Hoc Group of States Parties, which met in Geneva from July 23 to August 17, 2001, Ambassador Donald Mahley, U.S. Special Negotiator for Chemical and Biological Arms Control Issues, announced the U.S. view that the proposed Protocol was not viable and could not meet its mandated objectives. In the United States' view, the objectives of the BWC were:

- to uncover illicit biological weapons (BW) activities;
- to deter the ability of rogue states to conduct illicit offensive BW programs; and
- to ensure the ability to protect against those who do not abolish BW.

Ambassador Mahley stated that new approaches were necessary and assured the delegates that the United States would work hard to support global efforts to counter the threat posed by biological weapons. Prominent U.S. concerns regarding the draft Protocol were:

- significant liabilities posed to declared facilities by on-site visits, while such visits would have almost no chance of discovering information useful to the BWC;
- weakening of export control regimes established to reduce and prevent BW proliferation; and
- constitutional constraints making it unlikely the U.S. Senate would provide its consent to ratification given certain elements in the draft Protocol.

The Fifth RevCon was held from November 19 to December 7, 2001. There, Under Secretary of State for Arms Control and International Security, John Bolton, named several States Parties to the BWC that the U.S. Government believes are not in compliance with the Convention and reiterated the U.S. position that the traditional approaches to arms control were inadequate. He then proposed specific measures to enhance confidence in BWC compliance. These included:

- formulating national legislation to criminalize activities prohibited by the BWC and to enhance extradition;
- increasing cooperation with the World Health Organization in disease outbreak surveillance and assistance;
- enhancing domestic biodefense and counter-bioterrorism capabilities;
- creating mechanisms to initiate investigations of alleged BW incidents on the basis of a determination by the United Nations Secretary General; and
- establishing voluntary means to resolve compliance concerns.

The United States proposed that the AHG responsible for negotiation of the BWC Protocol be disbanded, and the RevCon was adjourned for one year.

The Fifth RevCon resumed November 11-22, 2002. The States Parties unanimously agreed on a program of work and to meet twice annually (one Meeting of Experts and one Meeting of States Parties) for the next three years leading up to the Sixth RevCon, in 2006. During the 2003 and 2004 meetings, the parties discussed practical ways of strengthening national measures against biological weapons and international capabilities for responding to cases of alleged use of biological weapons or suspicious outbreaks of disease. In 2005, the Meeting of Experts and the Meeting of States Parties discussed voluntary codes of conduct for scientists.

At the Sixth RevCon, held from November 20 – December 8, 2006, the work completed by the States Parties to further the goals of the Convention was reviewed.

Current Activities

Recent Developments

As mandated under the Convention, the States Parties to the BWC held the Sixth RevCon from November 20 – December 8, 2006. The States Parties reviewed the program of work completed from 2003-2005 and conducted an article-by-article review of the Convention. Discussions were held on the following topics:

- intersessional work program for 2007-2010;
- scientific and technological developments;
- scientific and technological cooperation,
- universality;
- bioterrorism;
- compliance;
- confidence building measures (CBMs);
- coordination with other organizations involved in biological weapons response; and
- implementation-support arrangements.

The States Parties decided to continue the intersessional program and to create the Implementation Support Unit, which would provide administrative support and centralize requests and offers for assistance. The Implementation Support Unit will also develop an electronic format for the forms used when implementing confidence-building measures and will work to promote the universalization of the Convention.

The next meeting of States Parties is tentatively set for December 10-14, 2007.

BIOLOGICAL WEAPONS TRILATERAL STATEMENT/AGREEMENT

PURPOSE AND BACKGROUND

Entry into Force
September 14, 1992

Signatories/ Parties
United States, Russia and United Kingdom

The Biological Weapons Trilateral Statement/ Agreement [long title: Joint Statement of the Russian Federation, the United Kingdom, and the United States of America of 1992 on Biological Weapons] details a number of steps to address compliance concerns regarding the Biological Weapons Convention (BWC). The Statement was precipitated by American and British concerns about Russian compliance with the BWC and provides for visits—not inspections—"to any nonmilitary biological site at any time." Such visits include access, sampling, personnel interviews and audio and video taping "to remove ambiguities" concerning BWC compliance. "Nonmilitary sites" include non-government commercial facilities.

Following the Statement's issuance in September 1992, working groups concluded a Proprietary Agreement in May 1993 on the principles and procedures needed to protect proprietary information during visits to non-military biological sites. Visits to Russian facilities in Pokrov and Berdsk occurred in October 1993 and in Omutninsk and Obolensk in January 1994. Reciprocal Russian visits to three American facilities and one British facility occurred in February and March 1994. In the United States, the visits took place at the Pfizer facilities in Terre Haute, Indiana, and Groton, Connecticut, as well as at the Department of Agriculture Plum Island facility off the coast of New York. All visits to nonmilitary biological sites were completed in 1994.

Under the Statement, all sides also established expert working groups to reach agreement on the procedures for visits to military biological facilities. In 1996, negotiations broke down over the definition of a military biological facility. The Russians wanted to include any facility used in offensive or defensive biological warfare activities since 1946. This would have greatly expanded the number of eligible U.S. military facilities. The U.S. offensive program ended in 1969, and the United States wanted to include only facilities in use after 1975, when the BWC entered into force. No negotiations have taken place since 1996, and no visits to military sites have been conducted to date.

Potential Facility Impacts

Key Verification Measures
Since the primary purpose of the Trilateral Statement is confidence building, there are no explicit verification measures. However, the dynamics of the initial round of visits and the draft procedures for visits to military biological facilities are comparable in many respects to inspections.

Should an agreement be reached on the procedures for visits to military biological facilities, Russian visits to U.S. military biological facilities could take place as early as 30 days after signature. A wide range of DoD facilities, possibly including facilities outside the continental United States, could then be impacted. If an agreement on military sites includes facilities involved in offensive production prior to 1969, a larger number of facilities would be affected.

Visits or other forms of observation continue to be possible in non-government facilities, but their probability is extremely low.

Current Activities

Recent Developments
No further visits are expected.

CHEMICAL WEAPONS CONVENTION

PURPOSE AND BACKGROUND

Entry into Force
April 29, 1997

Signatories/ Parties
181 States Parties, 6 signatories have not ratified

Selected Members
United States and Russia

Selected Nonmembers
Egypt, Iraq, Israel, North Korea and Syria

The Chemical Weapons Convention (CWC) [long title: The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction] is the first multilateral arms control and disarmament treaty to include a verification regime affecting both military and commercial industry activities. The CWC prohibits States Parties from developing, producing, otherwise acquiring, stockpiling, retaining, transferring directly or indirectly, and using chemical weapons (CW). The Convention also prohibits any State Party from assisting anyone to engage in CWC-prohibited activities.

Each State Party is required to submit a highly detailed initial data declaration and to submit periodic updates. Each Party is also obligated to destroy all CW in its possession or under its jurisdiction. In addition, each Party is obligated to destroy all CW abandoned on the territory of other States Parties and to destroy or convert all CW production facilities.

According to the Convention, annual Conference of the States Parties (CSP) meetings are to be held to aid in determining implementation and verification methods. During the eleventh session of the CSP, which met in December 2006, the decision was made to extend the final date for destroying declared CW stockpiles. The States Parties have until April 29, 2012 to destroy all declared chemical weapons. The following destruction deadlines were agreed: April 29, 2007 for Albania; April 28, 2009 for India; December 31, 2010 for Libya; April 29, 2012 for Russia; April 29, 2012 for the United States; and December 31, 2008 for another State Party.

During the extended destruction period, the United States and Russia agreed to host visits to their destruction facilities. The visits will begin on a periodic basis with each destruction facility to be visited at least once by a team consisting of the Executive Council Chairperson or Vice-Chairperson,

a representative from each regional group, a representative from the other States Parties hosting visits, and a representative from the Director-General of the Technical Secretariat.

In 2007, worldwide, the States Parties plan to conduct 11 inspections at Schedule 1 facilities, 42 inspections at Schedule 2 facilities, 29 inspections at Schedule 3 facilities, and 118 inspections at other chemical production facilities. In addition, the States Parties plan to conduct 187 missions to CW storage and elimination sites.

For updated information on the status of CW destruction, go to the References section of the CBW Corner on the DTIRP Website at: http://dtirp.dtra.mil/CBW/References/progress.cfm

Potential Facility Impacts

Key Verification Measures

The CWC features an extensive verification regime consisting of data declarations, on-site inspections and continuous facility monitoring. Verification activities are conducted by the Technical Secretariat (TS) of the Organization for the Prohibition of Chemical Weapons (OPCW), which is the Convention's implementation body. Inspectors from the OPCW TS conduct numerous on-site inspections and continuous monitoring at CW destruction, storage and production facilities, as well as at other government and commercial industry facilities.

For verification purposes, the CWC categorizes chemicals into three lists or "schedules" of chemicals, as well as a list of unscheduled discrete organic chemicals (UDOC), which are described below.

Schedule 1 chemicals have little or no commercial use and either have been used in CW or have a high potential for use in activities prohibited under the Convention. Examples include nerve agents such as Sarin, and blister agents such as Mustard and Lewisite.

Schedule 2 chemicals include toxic chemicals and many precursor chemicals that can be used for CW production. They have certain legitimate uses and are not produced in large commercial quantities. Examples include certain chemicals used to manufacture fertilizers and pesticides.

Schedule 3 chemicals are chemicals and precursor chemicals

that can be used for CW production, but have many legitimate uses. They are produced in large commercial quantities. Examples include chemicals used to manufacture paint thinners, cleaners and lubricants.

UDOCs are chemical compounds of carbon except for its oxides, sulfides and metal carbonates; and other chemicals—especially chemicals containing phosphorus, sulfur or fluorine (PSF)—whose use in production is monitored under the CWC.

A large number of government and commercial industry facilities in the United States are declared facilities under the CWC. Declared facilities are obligated to submit initial and updated annual data declarations. Depending on the scope of a site's activities, declared facilities may be subject to initial and "routine" inspections. In addition, any facility may be selected for a challenge inspection to resolve possible non-compliance concerns expressed by another CWC State Party.

The Convention does not permit a State Party to refuse a challenge inspection. However, under U.S. law the President "may deny a request to inspect any facility in the United States in cases where the President determines that the inspection may pose a threat to the national security interests of the United States."

A continuing concern for facilities is the potential loss of sensitive information due to the frequent or long-term presence of highly qualified and experienced OPCW TS inspectors. Other security concerns involve the use of inspection equipment and the levels of access facilities may be obligated to provide.

One way to limit this threat is to conclude a facility agreement with the OPCW. Facility agreements can be negotiated between the State Party and the OPCW to limit access during routine inspections for the purpose of protecting national security, proprietary, and other sensitive information. In addition, the OPCW has developed and maintains a confidentiality regime to safeguard confidential information obtained from data declarations and on-site inspection activities.

In the event of a challenge inspection, the United States would follow established procedures for protecting sensitive information. However, implementing security countermeasures during a challenge inspection would be more complex than during a routine inspection and would likely be more costly, particularly if these measures are not executed properly.

To help facilities reduce the security risks and costs incurred when preparing for and hosting any type of inspection under the CWC, DTIRP is able to provide comprehensive assistance and advice. Assistance is also available from the Department of Commerce (DOC), lead agency for CWC industry implementation, the Defense Security Service (DSS), Military Services, and U.S. government sponsors .

Current Activities

Recent Developments

In 2006, the following countries deposited their instruments of ratification with the Secretary-General of the United Nations: Haiti (February 22, 2006), Liberia (February 23, 2006), the Union of the Comoros (August 18, 2006), the Central African Republic (September 20, 2006), and Montenegro (October 23, 2006).

Inspection Status

As of February 5, 2007, worldwide, the OPCW has overseen the destruction of more than:

- 23% of the world's declared stockpile of chemical agents (16,604 MT of chemical agent out of a declared total of 71,330 MT); and

CWC Inspections Worldwide

As of February 5, 2007

786	—	CW Destruction Facilities (CWDFs)
373	—	CW Production Facilities (CWPFs)
341	—	CW Storage Facilities (CWSFs)
171	—	Schedule 1 Facilities
363	—	Schedule 2 Facilities
189	—	Schedule 3 Facilities
403	—	UDOC Facilities
71	—	Old CW (OCW)
34	—	Abandoned CW (ACW)
2,731	Total	

- 30% of the declared chemical munitions and containers (2.6 million munitions/containers out of a declared total of 8.6 million munitions/containers).

The OPCW TS has completed 2,731 inspections as of February 5, 2007, at 999 sites (out of a total of 6,347 declared sites) located in 76 countries. Details are provided in the chart on page 12.

In the United States, CWC implementation activities have been ongoing since the Convention entered into force on April 29, 1997. In June 1997, initial inspections began at declared CW facilities including production, storage, destruction, and DoD Schedule 1 facilities.

On April 28, 2000, the U.S. National Authority submitted industry data declarations to the OPCW, bringing the United States into full compliance with the CWC.

As of January 2007, a total of 73 industry inspections had occurred in the United States, as shown in the box below.

CWC U.S. Industry Inspections

As of January 31, 2007

4	—	Schedule 1 Facilities
45	—	Schedule 2 Facilities
19	—	Schedule 3 Facilities
5	—	UDOC Facilities

No challenge inspections have been requested or conducted anywhere in the world. However, the United States and the OPCW continue to prepare for such an event. The TS has conducted mock challenge inspections in Brazil, the United Kingdom, and in the United States.

COMPREHENSIVE NUCLEAR TEST-BAN TREATY

PURPOSE AND BACKGROUND

Entry into Force
Not in force

Signatories/ Parties
137 States Parties
177 Signatories

Selected States Parties
Russia, Japan, South Korea, Ukraine and United Kingdom

Selected Signatory States
China, Egypt, Iran, Israel, Kazakhstan and United States

Selected Non-Signatory States
India, Iraq, North Korea and Pakistan

The Comprehensive Nuclear Test-Ban Treaty (CTBT) places a global ban on "any nuclear weapon test explosion or any other nuclear explosion." The Treaty contains extensive verification provisions, which include a global information collection and monitoring network and on-site inspections to investigate ambiguous events indicating a nuclear explosion, as well as confidence-building measures.

The CTBT will enter into force 180 days after the 44 states specified in the Treaty have ratified it. These 44 states—whose ratification of the CTBT is required prior to the Treaty's entry-into-force—are referred to as "named states" and are identified as follows:

- five acknowledged nuclear-weapon states—United States, Russia, United Kingdom, France, and China (all have ratified the CTBT except China and the United States);
- three threshold states—India, Pakistan, and Israel;
- members of the Conference on Disarmament (CD) as of June 18, 1996, who participated in the CD's 1996 session (which excludes Yugoslavia); and
- states possessing nuclear research or power reactors.

As of February 2007, all of the required 44 states had signed the CTBT except for three named states—India, Pakistan, and North Korea. Thirty-four of the 44 had also ratified the Treaty.

India and Pakistan have indicated a willingness to sign the CTBT. Both states tested nuclear devices in May 1998. On February 21, 1999, the two states signed the Lahore Declaration, pledging their intent to take "immediate steps" to reduce the risk of accidental or unauthorized use of nuclear weapons and discuss further confidence-building measures. In the accompanying Memorandum of Understanding (MOU), both sides committed to continue to abide by their respective unilateral moratoriums on nuclear test explosions, unless deemed necessary for national security reasons.

Although the United States was the first nation to sign the Treaty, the U.S. Senate declined to ratify the CTBT (48 for, 51 against, 1 abstention) on October 13, 1999. At a January 24, 2002 press conference, Under Secretary of State for Arms Control and International Security Affairs John Bolton, said that the Bush Administration is opposed to the CTBT and has no plans to seek Senate action.

Potential Facility Impacts

Key Verification Measures

The CTBT's verification regime includes an International Monitoring System and an International Data Center; on-site consultations, inspections, and clarifications; and confidence-building measures.

The International Monitoring System will be composed of four global monitoring technologies:

- seismological—50 primary stations and 120 auxiliary stations;
- radionuclide—80 stations to monitor particulates (40 of these stations will also monitor for noble gases);
- hydroacoustic—11 stations monitoring for sound waves caused by a nuclear explosion in the ocean; and
- infrasound—60 stations monitoring for very low atmospheric frequency sound waves potentially caused by a nuclear explosion.

The International Data Center (IDC) will be accessible to all States Parties and will receive, collect, process, analyze, report and archive data from the International Monitoring System facilities.

On-site inspections may be conducted to determine whether a suspected nuclear explosion—detected either by the monitoring stations or by the national technical means of a State Party—actually occurred. Inspection activities may include:

- overflight/visual observation, photography, multi-spectral imaging, radioactivity measurement, environmental sampling, and passive seismic monitoring for aftershocks;
- active seismic surveys to locate underground anomalies, plus magnetic and gravitational field mapping, ground-penetrating radar surveys, and electrical conductivity measurements; and
- drilling to obtain radioactive samples.

During an on-site inspection, the inspected State Party will have the right to take measures to protect sensitive installations and locations. Specific provisions of the on-site inspection regime include a 1,000 square kilometer maximum inspection area, a 60-day timeline with a 70-day extension option, and a managed access regime that includes 4 square kilometer maximum exclusion zones and up to a total of 50 square kilometers of restricted-access sites.

Moreover, the CTBT permits the following measures to manage access:

- shrouding sensitive displays, stores and equipment;
- restricting measurements of radionuclide activity and nuclear radiation to only allow inspectors to determine the presence or absence of relevant radiation and energies;
- restricting sampling procedures to only allow inspectors to determine the presence or absence of radioactive or other relevant products;
- managing access to buildings and other structures; and
- declaring restricted-access sites.

Implementation of the CTBT is expected to raise few facility security concerns in comparison to other arms control treaties. This is because most compliance monitoring activities will be conducted remotely and passively through the seismic and other sensors. The work of the International Monitoring System will not jeopardize legitimate sensitive information.

Occasionally natural (e.g., an earthquake) or non-nuclear activity (e.g., mining) could raise questions that will need to be addressed. Treaty provisions for consultation and clarification, as well as confidence-building measures, may reduce the need for on-site inspections. However, in exceptional cases, suspicious activities could lead to an on-site inspection being conducted by an international team of inspectors.

In the event of a CTBT inspection, potential security concerns could arise due to the duration of the inspectors' presence on site, the level of access required, the instruments used to verify compliance, and the inspection procedures implemented. However, under the CTBT, security concerns will be lessened somewhat because on-site inspection activities will most likely be conducted in remote, non-industrial locations.

Current Activities

Recent Developments

The CTBTO Preparatory Commission (PrepCom) held its 27th session from November 13-17, 2006. The PrepCom was attended by 93 states and PrepCom Executive Secretary, Tibor Toth, updated delegates on the installation of approximately 75 percent of the 321 International Monitoring System stations.

In 2006, the following countries became States Parties to the CTBT: Antigua and Barbuda, Cameroon, Suriname, Zambia, Cape Verde, Vietnam, Armenia, Andorra, Ethiopia, Montenegro, and Bosnia and Herzegovina. The total number of States Parties at the end of 2006 was 137.

The position of the United States on U.S. ratification of the CTBT remains unchanged.

CONVENTION ON CONVENTIONAL WEAPONS

PURPOSE AND BACKGROUND

Entry into Force
December 2, 1983

Signatories/ Parties
As of October 2005:
102 States Parties

The Convention on Conventional Weapons (CCW) [long title: Convention on Prohibitions or Restrictions on Use of Certain Conventional Weapons which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects] is one of several legally binding international agreements that fall under the general heading of "Laws of War," regulating the means and methods of warfare. The CCW is composed of a convention and five protocols, four of which have entered into force. Together, they restrict or prohibit the use of conventional weapons whose effects have been declared to cause indiscriminate harm to civilians or to produce unnecessary suffering to combatants.

Protocol I prohibits the use of weapons whose primary effect is to injure with fragments that cannot be detected in the human body by X-ray, such as plastic fragments.

Protocol II prohibits or restricts the use of mines, booby traps and other devices against civilians or military targets in ways that may cause indiscriminate harm to civilians. Such devices are prohibited in populated areas where combat is not taking place unless directed against a specific military target. In addition, the Protocol restricts the use of remotely delivered mines, requires that the location of minefields be recorded and disclosed at the end of hostilities, and calls for international cooperation to remove mines and other devices at the end of hostilities.

Protocol II was amended May 3, 1996, as agreed by the States Parties at the first Review Conference held April-May 1996. It entered into force two years later, on December 3, 1998. The purpose of the amended Protocol was to extend its provisions to apply to internal conflicts as well as to international conflicts. The Amended Protocol II also shortened the duration of unmarked anti-personnel landmines and required all anti-personnel landmines to be detectable.

Protocol III prohibits or restricts the use of incendiary weapons against civilians and the use of air-delivered incendiary weapons against military targets located in areas where civilian populations are concentrated. The use of non-air-delivered weapons under the same circumstances is allowed in cases where the military target is clearly separated from the surrounding civilian population. Additionally, the use of incendiary weapons on forests and plant cover is restricted.

Protocol IV was adopted in October 1995 and entered into force on July 30, 1998. It prohibits the use and sale of lasers specifically designed to cause permanent blindness to unenhanced vision.

Protocol V was adopted on November 28, 2003, and will enter into force once ratified by 20 countries. It addresses the threat of explosive remnants of war (ERW) and covers munitions, such as artillery shells, grenades, and gravity bombs, that fail to explode as intended. It also addresses any unused explosives left behind and uncontrolled by armed forces.

States Parties to the CCW are required not only to sign and ratify the Convention but also to consent to be bound by at least two of the Protocols. The United States signed the CCW in 1982, ratified the Convention on March 24, 1995, and gave its consent to be bound by Protocols I and II in 1995. The United States submitted the Amended Protocol II—as well as Protocol III and Protocol IV, which have not been ratified—to the Senate for its advice and consent to ratification on January 7, 1997. The Amended Protocol II was ratified on May 24, 1999.

Potential Facility Impacts

Key Verification Measures

The CCW contains no verification measures. However, at the April-May 1996 CCW Review Conference (RevCon), the United States proposed a Compliance Annex to Protocol II pertaining to landmines. The Annex would permit any State Party to convene a Compliance Meeting for the purpose of conducting an inquiry to clarify or resolve compliance concerns. The proposed Annex would also allow Meeting members to dispatch teams of experts to areas and installations where they could reasonably collect facts (with limited access) relevant to compliance issues. The United States renewed this offer in December 1999 at the First Annual Conference of Parties to the Amended Mines Protocol.

Should the U.S.-proposed Compliance Annex to Protocol II be adopted, a large number of facilities could be subject to on-site inspections, or other forms of monitoring. This proposed Annex would, however, allow inspected States Parties the right to make necessary arrangements under the following circumstances:

- to protect sensitive equipment, information and areas;
- to comply with any constitutional obligations regarding proprietary rights, searches and seizures, or other constitutional protections; and
- to protect the conduct of actual military operations.

The Second Review Conference of States Parties to the CCW was held December 11-21, 2001, in Geneva. In preparation for the RevCon, the United States submitted a set of proposals to "significantly improve the protection of civilians, peacekeepers and friendly armed forces." These proposals included:

- requiring anti-vehicle mines to be detectable;
- requiring remotely delivered anti-vehicle mines to be equipped with self-destruction capabilities;
- improving the existing requirements for self-destruction and self-deactivation features of anti-personnel landmines;
- establishing a compliance mechanism to deal with legitimate complaints related to misuse of mines, booby-traps and other devices; and
- expanding the CCW's scope to apply in civil wars and internal armed conflicts.

In addition to the above issues, the States Parties also considered issues related to ERW (e.g., cluster munitions) and small caliber weapons and ammunition. At the conclusion of the RevCon, the States Parties agreed to a number of specific measures, including:

- an amendment to Article 1 of the CCW expanding the provisions of the Convention to apply to internal as well as to international conflicts;
- commissioning a Group of Governmental Experts (GGE), which will meet three times annually to examine ways of dealing with explosive remnants of war and anti-vehicle landmines; and

- consultations on options to promote compliance with the CCW and its four Protocols.

The Third Review Conference was held November 7-17, 2006, in Geneva. It was agreed that the States Parties would meet bilaterally to discuss matters relating to CCW compliance. It was also agreed that a Meeting of the High Contracting Parties would review the status of the Convention and identify means for assisting states with implementing the CCW and its Protocols. This assistance would include recommending appropriate national legislation and providing information to a state's armed forces and civilians regarding the actions required to meet the CCW's technical requirements. In addition, the States Parties agreed that a group of experts should be created to provide assistance and to answer questions regarding CCW compliance.

Current Activities

Recent Developments

In 2006, Montenegro and Cameroon deposited their instruments of ratification. These actions increased the total number of States Parties to 102.

On November 12, 2006, the CCW's Protocol V on Explosive Remnants of War entered into force. This Protocol requires each State Party to clear or destroy all ERW in the territories under its control at the end of a conflict. If the state that used the ERW does not control the territory where they are located, the user state is required to provide assistance, if feasible. In addition, the Protocol requires States Parties to protect the civilians in their territories from the effects of ERW.

At the Third Review Conference held from November 7-17, 2006, the States Parties agreed to:

- hold a Preparatory Committee for the first Conference of the High Contracting Parties to ERW on June 18, 2007;
- hold a Group of Governmental Expert meeting from June 19-22, 2007;
- hold the First Conference of the High Contracting Parties to Protocol V on ERW on November 5, 2007; and
- hold the Ninth Annual Conference of the High Contracting Parties to Amended Protocol II on November 6, 2007.

FISSILE MATERIAL CUTOFF TREATY

PURPOSE AND BACKGROUND

Entry into Force
Not in force
Awaiting negotiation

Signatories/ Parties
None

The Fissile Material Cutoff Treaty (FMCT) would prohibit the production of weapons-usable fissile material or any such material not currently subject to the application of International Atomic Energy Agency (IAEA) safeguards. The Treaty would also prohibit States Parties from assisting other states in producing highly enriched uranium (HEU) for weapons use and in plutonium separation.

Disagreements among states over the agreement's scope and purpose, and over linkages to other issues, have delayed the start of negotiations in the United Nations Conference on Disarmament (CD) for almost 10 years. For example, the nuclear weapon states oppose the inclusion of existing stockpiles of weapons-usable plutonium and HEU, in addition to future stocks, while several non-nuclear weapons states, such as Pakistan, support their inclusion. Further, the four states not party to the Nuclear Non-Proliferation Treaty (NPT)-North Korea, India, Israel and Pakistan-are not in favor of a cutoff agreement, particularly one that would bring them under the IAEA safeguards umbrella in the same way as States Parties to the NPT.

Potential Facility Impacts

Key Verification Measures
Future verification measures could include routine inspections at declared facilities. Challenge inspections could be allowed at both declared and undeclared nuclear facilities to provide credible assurance of the absence of undeclared production of weapons-usable fissile material. Likewise, States Parties to the FMCT might be required to declare the status of all uranium enrichment and spent reactor fuel reprocessing plants on their territories. Actual facility vulnerabilities would be similar to those under the U.S.-IAEA Safeguards Agreement.

However, during the third session of the UN CD in July 2004, the United States stated its opposition to the development of an FMCT verification regime. The United States remains committed to the negotiation of a legally binding treaty banning the production of fissile material for nuclear weapons or nuclear explosives, but has "serious concerns" about whether realistic, effective verification of an FMCT is achievable. The United States will oppose negotiations regarding inspections and verification.

In October 2004, the U.S. representative to the CD, Ambassador Jackie Sanders, reiterated U.S. support for international negotiation of a treaty banning the production of fissile material used in nuclear weapons or other nuclear explosive devices, while allowing production for other activities not subject to the treaty. Further, she said, "The objective of an FMCT is not its verification, but the creation of an observed norm against the production of fissile material intended for weapons."

Current Activities

Recent Developments

At the CD from May 17-22, 2006, the members held a thematic discussion regarding starting negotiations on an FMCT. Speakers expressed varied opinions concerning the FMCT's scope, preconditions for negotiations, and the possibility of including verification provisions. On May 18, 2006, the United States tabled a draft of the FMCT.

INTERMEDIATE-RANGE NUCLEAR FORCES TREATY

PURPOSE AND BACKGROUND

Entry into Force
June 1, 1988

Signatories/ Parties

Original Signatories:
United States and Soviet Union

Parties now include:
(former Soviet republics) Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan

The Intermediate-Range Nuclear Forces (INF) Treaty [long title: Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Elimination of Their Intermediate-Range and Shorter-Range Missiles] sought to strengthen regional (i.e., European) security and strategic stability and reduce nuclear arms. It was the first major arms control agreement to establish a verification regime that included on-site inspections.

The Treaty mandated the complete elimination (and prohibited further production) of all U.S. and Soviet nuclear-armed, ground-launched ballistic and cruise missiles with ranges of 500-5,500 kilometers and their infrastructure within 3 years of entry into force (EIF). All shorter-range INF systems were to be destroyed within 18 months of EIF, while all longer-range systems were to be eliminated within 3 years of EIF. Relevant INF facilities became subject to inspection upon EIF.

Although the Treaty is of unlimited duration, the inspection regime at declared facilities ended on May 31, 2001. Before this date, Soviet/Russian inspectors continuously monitored a former Pershing II missile production facility in Magna, Utah. Russian inspection teams also periodically inspected two U.S. industrial facilities that produced launchers for Pershing II ballistic missiles and ground-launched cruise missiles. No further inspection activities are provided for under the Treaty.

Potential Facility Impacts

Key Verification Measures
The States Parties to the Treaty provided initial and updated data declarations of treaty-limited items (TLI), deployment locations, and support facilities. The Parties were also required to provide notifications of

movement of TLI between declared facilities. National technical means and on-site inspections were used to verify treaty compliance.

Due to the end of the inspection regime, no potential facility impacts remain.

Current Activities

Recent Developments

All TLI were eliminated as of May 28, 1991, when the last SS-20 launch vehicle and its transfer vehicle were destroyed. In total, 846 U.S. INF missile systems and 1,846 former Soviet INF missile systems were destroyed.

Inspection Status

Monitoring and quota inspections at both U.S. and Russian facilities ended May 31, 2001. The United States conducted 540 inspections; Russia conducted 311 inspections. A summary of inspections (listed by inspection type) conducted under the Treaty's inspection regime appears in the box below.

INF Inspection Summary

	Conducted by United States	Conducted by S.U./Russia
Elimination	137	109
Quota	185	141
Closeout	101*	27
Baseline	117	34
Total	**540**	**311**

* Includes closeout inspection conducted at Saryozek, which the Special Verification commission determined to be invalid, and does not include closeout inspections due to MOU Omission (17) and collocated Sites (12)

NUCLEAR NON-PROLIFERATION TREATY

PURPOSE AND BACKGROUND

Entry into Force
March 5, 1970

Signatories/ Parties
188 States Parties
Includes all five nuclear-weapon states (NWS): France, China, Russia, United Kingdom, and United States

The NPT defines an NWS as a state that "has manufactured and exploded a nuclear weapon or other nuclear device prior to January 1, 1967"

Nonmembers
Israel, India, Pakistan; North Korea withdrew from the NPT in January 2003

The Nuclear Non-Proliferation Treaty (NPT) [long title: Treaty on the Non-Proliferation of Nuclear Weapons] represents the world's primary legal and political barrier against the further proliferation of nuclear weapons. With 188 States Parties, the NPT has the broadest international membership of all arms control agreements. The Treaty's objectives are to prevent the spread of nuclear weapons and their technologies, to foster peaceful uses of nuclear energy, and to further the goal of achieving general and complete nuclear disarmament.

In particular, the NPT obliges the five acknowledged nuclear weapon states (NWS)-China, France, Russia, the United Kingdom and the United States-not to transfer nuclear weapons, other nuclear explosive devices or their technologies to any non-nuclear weapon state (NNWS). At the same time, each NNWS agrees not to acquire or produce nuclear weapons or nuclear explosive devices. Additionally, NNWS are required to accept safeguards applied under the auspices of the International Atomic Energy Agency (IAEA) to detect the diversion of nuclear materials from peaceful activities, such as power generation, to the production of nuclear weapons or other nuclear explosive devices.

Each State Party (NWS and NNWS) agrees not to provide the following to any non-nuclear weapon state:

- special fissionable material or a source of such material; or
- equipment or material especially designed or prepared for the processing, use or production of special fissionable material unless the state is under international safeguards.

The Sixth Review Conference (RevCon) of the NPT was held in May 2000. In the Final Document, the five acknowledged nuclear powers pledged "to accomplish the total elimination of their nuclear arsenals."

Thirteen "practical steps for the systematic and progressive efforts to implement Article IV" were agreed. These included:

- instituting additional unilateral efforts to reduce their nuclear arsenals;
- providing more information on their nuclear capabilities and the implementation of disarmament agreements;
- reducing their non-strategic nuclear weapons;
- solidifying measures to further reduce the operational status of nuclear weapon systems;
- diminishing the role of nuclear weapons in security policies; and
- involving all five nuclear powers "as soon as appropriate" in nuclear reduction and disarmament negotiations.

The seventh RevCon was held in May 2005 and is discussed in the Recent Developments section below.

Potential Facility Impacts

Key Verification Measures

Each NNWS party to the NPT is obligated to conclude a safeguards agreement with the IAEA. Under these individual agreements, an NNWS agrees to declare all nuclear materials within its jurisdiction and to allow inspectors from the IAEA to conduct periodic inspections at facilities containing nuclear material. Under the more recent Strengthened Safeguards Program (also called the "93+2" Program), IAEA inspectors may carry out short-notice inspections within or in proximity to declared facilities.

As an NWS, the United States is not required to submit to IAEA safeguards. However, to show its leadership, encourage NNWS to join the NPT, and demonstrate that NNWS will not be unfairly disadvantaged by implementing nuclear safeguards, the United States "voluntarily offered" in the late 1960s to permit inspections at its commercial nuclear industries.

This voluntary offer became the basis for negotiating the U.S.-IAEA Safeguards Agreement, sometimes called the Voluntary Offer Agreement, which entered into force on December 9, 1980. The Safeguards Agreement permits IAEA safeguards to be applied to all U.S. nuclear activities, except those with direct national security significance.

While no provisions exist under the NPT for on-site IAEA inspections in the United States (or in any other NWS), 250 Nuclear Regulatory Commission (NRC) licensed and Department of Energy (DOE) facilities are eligible for the application of IAEA safeguards and safeguard inspections.

Additional verification activities will be authorized under the U.S.-IAEA Additional Protocol once the President signs and deposits the U.S. instrument of ratification. The Senate provided its advice and consent to ratification in March 2004. In 2006, the U.S. Senate passed and submitted the United States-India Peaceful Atomic Energy Cooperation Act, which included implementing legislation for the U.S.-IAEA Additional Protocol. This act, too, awaits the President's signature.

Current Activities

Recent Developments

The Seventh NPT Review Conference was held in New York from May 2-27, 2005. Conference delegates studied three main topics: nuclear disarmament; nonproliferation and nuclear weapon-free zones; and peaceful uses of nuclear energy.

Although no conclusions or specific recommendations were agreed, Ambassador Jackie Sanders, U.S. Special Representative to the President for the Nonproliferation of Nuclear Weapons, said in her closing statement to the Conference that she was "... convinced that we, the Parties to the NPT, have taken important steps here, which need to continue." She also stated the United States' willingness to "... cooperate with all Parties committed to strengthening the Treaty and the nuclear nonproliferation regime."

The Preparatory Committee for the 2010 NPT Review Conference will take place from April 30 – May 11, 2007 in Vienna, Austria.

There are currently 188 States Parties to the NPT.

OTTAWA CONVENTION

PURPOSE AND BACKGROUND

Entry into Force
March 1, 1999

Signatories/ Parties
133 original signatories including Canada, France, Germany, and United Kingdom
152 States Parties

Selected Nonmembers
United States, China, Russia, and South Korea

The Ottawa Convention [long title: Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Landmines and on Their Destruction] is an international ban on anti-personnel landmines (APL). The Convention defines "anti-personnel mine" as a mine designed to explode by the presence, proximity or contact of a person, resulting in incapacitation, injury or death of one or more persons. It does not affect anti-tank or anti-vehicle mines, anti-handling devices attached to an anti-vehicle mine to prevent its removal, or to command-detonated munitions triggered manually by combatants.

States Parties to the Convention must never, under any circumstances, use, develop, produce, stockpile, retain, or transfer APL to anyone, directly or indirectly. In addition, States Parties are obligated not to assist, encourage, or induce anyone, directly or indirectly, to engage in any activity prohibited by the Convention.

Each Party also undertakes to destroy, or to ensure the destruction of, all APL in mined areas under its jurisdiction or control. Stockpiled APL must be destroyed within 4 years of the Convention's entry into force. All mines in the ground, whether in minefields or elsewhere, must be destroyed within 10 years of entry into force. A small number of APL may be retained solely for training and to develop mine clearance and destruction techniques. More than 100 States Parties have either completely destroyed their APL stockpiles or never possessed APLs.

Potential Facility Impacts

Key Verification Measures

The Ottawa Convention includes several verification measures. States Parties are required to report annually to the United Nations (U.N.) Secretary-General on all stockpiled APL, mined areas, mines retained for training purposes, destruction of mines, and measures taken to prevent civilians from entering mined areas. States Parties must also provide detailed technical information about their past mine production in order to facilitate mine clearance.

Clarification of compliance concerns may be sought through the U.N. Secretary-General. If necessary, a meeting of States Parties may be held to determine whether an obligatory fact-finding mission should be sent to the relevant territory of a requested State Party. The fact-finding mission may last no more than 14 days in the territory of the requested State Party, and no more than 7 days at one specific site. Based on the mission's report, the meeting of States Parties may propose corrective actions or legal measures in accordance with the U.N. Charter.

The United States did not sign the Convention during the December 1999 signing ceremony in Ottawa because of two concerns:

- APL play a crucial role in the defense of South Korea; and
- the Convention's definition of anti-personnel landmines prohibits the munitions used by the United States that contain both anti-tank and anti-personnel sub-munitions and anti-handling devices.

In February 2004, the United States announced that it will not sign the Ottawa Convention. Instead, the Bush Administration will seek global support for a worldwide ban on the sale or export of all persistent mines, which can explode for many years after initially deployed. The United States is working toward ending its use of persistent anti-vehicle and anti-personnel landmines. Between now and 2010, U.S. forces are prohibited from using persistent mines outside of the Korean Peninsula, unless specifically authorized by the President. After 2010, the exception for persistent mines in Korea will expire.

Although the United States decided not to join the Convention, U.S. facilities located on the territory of host governments that *are* States Parties could be subject to the Convention's fact-finding missions.

Current Activities

Recent Developments

The Convention's first review conference was held in Nairobi, Kenya, from November 29 – December 3, 2004. Although the United States did not attend, it has encouraged participating states to:

- increase funding for humanitarian mine action, and harmonize their efforts with other key mine action programs worldwide;
- examine their own policies on the continued use of persistent anti-vehicle landmines, which pose substantial dangers to innocent life yet are not covered under the Ottawa Convention;
- agree to negotiate, at the CD, a ban on the sale or export of all persistent mines, including anti-vehicle mines; and
- eliminate all non-detectable landmines, which pose a particular hazard to deminers.

In 2006, the Convention held its Seventh Meeting of States Parties from September 18-22, 2006 in Geneva, Switzerland. The States Parties agreed to create a process to expedite requests for extensions to Article 5 deadlines.

The Convention will hold meetings of the Standing Committees from April 23-27, 2007, and the next Meeting of States Parties will take place from November 18-22, 2007, in Jordan.

Inspection Status

No fact-finding missions have been required or requested to date.

PLUTONIUM PRODUCTION REACTOR AGREEMENT

PURPOSE AND BACKGROUND

Entry into Force
September 23, 1997

Signatories/ Parties
United States and Russia

The Plutonium Production Reactor Agreement (PPRA) [long title: The Agreement between the Government of the United States of America and the Government of the Russian Federation Concerning Cooperation Regarding Plutonium Production Reactors] prohibits the resumption of operations at specific U.S. and Russian plutonium production reactors that have been shut down. The Agreement established the Joint Implementation and Compliance Commission (JICC), which meets in Moscow or Washington, DC (usually no more than twice per year) to discuss and resolve implementation concerns.

In March 2003, the United States and Russia signed an amendment to the PPRA, calling for the shutdown of Russia's three remaining plutonium production reactors and the replacement of their energy production with fossil fuel sources. These reactors provide essential heat and power for tens of thousands of residents of Siberia. As of mid-2003, the Department of Energy expects the two reactors at Seversk (formerly Tomsk-7) to be shutdown by 2008, and the single reactor at Zheleznogorsk to be shutdown by 2011. U.S. contractors will oversee the work, most of which will be done by Russian firms.

Potential Facility Impacts

Key Verification Measures

The PPRA applies to 14 shutdown U.S. plutonium reactors and 13 Russian plutonium reactors, 10 of which have been shut down. The remaining three Russian reactors are expected to be shut down by 2011. The United States and Russia are permitted to conduct monitoring visits once per year at the other's shutdown reactors to monitor the non-weapons use of the plutonium. The United States also has the right to monitor the two Russian plutonium storage facilities, located at Seversk and Zheleznogorsk, twice each year During these visits, personnel visually inspect and place seals on plutonium oxide storage containers, and observe the non-destructive assay of containers to ensure they contain weapons-grade plutonium.

The PPRA allows the Parties to designate information transmitted under the Agreement as "sensitive" to prevent nonparty individuals and organizations from having access to this information. Because the U.S. reactors were government-owned and are located at current U.S. government facilities, there is no potential impact to any other nuclear facility.

Current Activities

Recent Developments

The Agreement continues to be implemented. Both sides host reciprocal visits by joint expert groups at their respective shutdown reactors. The United States continues to monitor the fissile material stored at Seversk and Zheleznogorsk.

In Seversk, construction on the fossil fuel plant began in April 2005 and the reactors are expected to be shutdown by 2008.

In Zheleznogorsk, work on the new fossil fuel plant began in the fall/winter of 2005. The reactor is expected to be completely shutdown by 2011. Also, in 2005, the U.S. Congress agreed to allow the Department of Energy to accept international funds for completing the work at Zheleznogorsk. Contributors include the United Kingdom, Canada, and the Netherlands.

STRATEGIC ARMS REDUCTION TREATY

PURPOSE AND BACKGROUND

Entry into Force
December 5, 1994

Signatories/ Parties
United States, Russia, Belarus, Kazakhstan, and Ukraine

The Strategic Arms Reduction Treaty (START) [long title: Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Reduction and Limitation of Strategic Offensive Arms] is the first treaty to reduce the number of deployed strategic offensive arms. It reduces and limits such arms by 30 to 40 percent from their pre-START levels and stipulates an aggregate throw-weight limit of 3,600 metric tons. In particular, START mandated that after 7 years (by December 5, 2001), the United States and Russia would reduce and limit their total number of deployed strategic nuclear delivery vehicles (SNDVs) to 1,600. Launchers associated with eliminated missiles also had to be eliminated. In addition, both sides were required to reduce their total number of warheads to 6,000 (attributed to deployed ballistic missiles and deployed heavy bombers). These final reduction limits were met by the December 2001 deadline. As of December 2005, the United States had 1,225 SNDVs and 5,966 attributed warheads, and Russia had 981 SNDVs and 4,732 attributed warheads. Ukraine, Belarus, and Kazakhstan were required to eliminate all of their deployed strategic delivery systems.

Separately, in equal political declarations, the Parties agreed to declare on an annual basis the number of nuclear submarine-launched cruise missiles (SLCMs) each planned to deploy (not to exceed 880) at entry into force and for each of the following 5 years (1994-1999). Since that agreement was reached, each side has unilaterally taken all nuclear SLCMs out of deployment.

The Treaty will remain in force for 15 years after entry into force (1994-2009), followed by a determination of successive 5-year extensions.

Potential Facility Impacts

Key Verification Measures
The Parties are required to provide initial and updated data declarations of the technical characteristics of items of inspection (IOI), the deployed IOI

numbers and locations; notification of IOI elimination or conversion; and facility close-outs. National technical means (NTM) and cooperative measures provide additional verification of treaty compliance. Moreover, START permits 13 types of scheduled and short-notice on-site inspections of declared facilities, as well as continuous monitoring.

Scheduled baseline inspections were completed in the United States and the former Soviet Union in June 1995. The United States continues to conduct continuous monitoring of the ICBM final-assembly plant at Votkinsk, Russia. At treaty signing, Russia had the right to conduct continuous monitoring at a declared facility near Promontory, Utah; however, Russia opted not to exercise this right, and in 2001, this facility became subject to suspect-site inspections only. Visits with special right of access (SAVs), while unlikely, may be requested to address urgent compliance concerns. If a SAV is requested, the United States may refuse the visit or, if accepted, negotiate conditions to limit its scope and the level of access granted to inspectors.

Each treaty year, the United States and the other combined Parties as a group, each have the option of conducting up to 28 short-notice inspections. In a short-notice inspection, a State Party must provide notification of the intent to conduct an inspection no less than 16 hours prior to the inspection team's arrival in country. Between 4-24 hours after arrival, the team must declare which site it intends to inspect. After declaring the site, a maximum of 9 hours is permitted before the team must arrive at the site to begin its inspection. After arriving in-country, an inspection team may request a sequential inspection no earlier than 18 hours after the start of the first inspection.

Inspection procedures are directed at IOI and the inspection team has the right to make close visual observations and to take photographs and measurements. Protective measures, such as shrouding, route planning, and limiting access are implemented by site personnel and the U.S. escort team. Generally, these measures provide adequate protection for most non-treaty-related assets and activities located at an inspection site.

Current Activities

Inspection Status

As of December 2006, the United States had conducted 546 inspections and Russia had conducted 373. The United States also conducts continuous portal monitoring activities at Votkinsk, Russia. These activities will continue as long as the START treaty remains in force and as long as items relevant to continuous portal monitoring are assembled at Votkinsk. No SAVs have been requested to date.

STRATEGIC ARMS REDUCTION TREATY II

PURPOSE AND BACKGROUND

Entry into Force
Not in force

Signatories/ Parties
United States and Russia signed on January 3, 1993

Russia withdrew on June 14, 2002

Under the Strategic Arms Reduction Treaty II (START II) [long title: Treaty Between the United States of America and the Russian Federation on Further Reduction and Limitation of Strategic Offensive Arms], the Parties agreed to reduce the number of strategic nuclear delivery vehicles (SNDVs) to carry no more than 3,000-3,500 deployed warheads, thereby reducing deployed warheads to one-third of pre-START levels.

In addition to phased reductions and limitations, START II contains three new and notable provisions not found in the original START Treaty. First, Russia must eliminate all of its SS-18 missiles. This would eliminate all heavy intercontinental ballistic missiles (ICBMs). Second, START II prohibits deployment of any ICBM with multiple warheads, which would significantly reduce first-strike potential, thereby increasing stability. Third, heavy bombers would be counted based on the number of nuclear weapons they are equipped to carry. These include long-range missiles, air-launched cruise missiles, short-range missiles, or bombs.

Potential Facility Impacts

Key Verification Measures
The START II agreement builds upon the comprehensive verification regime established under the original START Treaty. The Treaty also includes some new verification measures, such as observation of SS-18 silo conversion and missile elimination procedures, exhibitions, and inspections of all heavy bombers to confirm weapon-carrying capabilities.

Other verification provisions, including on-site inspections, are generally similar to those stipulated in START. Such provisions include data exchanges, notifications, inspections, national technical means (NTM), and cooperative measures.

Potential facility impacts are generally the same as under START. All declared U.S. facilities subject to periodic inspections under START would be affected by START II. The Department of Defense (DoD) controls all declared U.S. facilities subject to periodic START inspections.

Current Activities

Recent Developments

On June 14, 2002, Russia withdrew from START II—one day after the United States formally withdrew from the ABM Treaty. Importantly, both countries also signed the new Moscow Treaty on May 24, 2002, which mandates the reduction of deployed nuclear warheads to levels between 1,700-2,200 by 2012—lower levels than those stipulated by START II (3,000-3,500).

The history of the START II Treaty's ratification process included having the U.S. Senate provide its advice and consent to ratification on January 26, 1996. However, a START II Protocol was signed in 1997 that required the Treaty to be resubmitted to the Senate.

In April 2002, Russia ratified the START II Treaty, including the 1997 Protocol. However, the Russian legislation prohibited the actual deposit of Russia's instrument of ratification until the United States also ratified the START II Protocol as well as the Anti-Ballistic Missile (ABM) Treaty Demarcation Agreement. The United States and Russia had signed both the START II Protocol and the ABM Demarcation Agreement on September 26, 1997.

The purpose of these agreements was to address Russia's concerns regarding START II implementation costs and U.S. plans to deploy a National Missile Defense system. The Protocol also extended the final deadline for START II limitations and reductions to December 31, 2007, and required half of all reductions and limitations to be completed by December 31, 2004. In addition, the Demarcation Agreement delineated between strategic (banned by the ABM Treaty) and tactical (allowed by the ABM Treaty) missile defense systems.

Senate leaders decided not to consider the START II Protocol or the ABM Demarcation Agreement until after the new administration took office in January 2001. It now appears that START II, its Protocol and the ABM Demarcation Agreement have become obsolete and are not likely to enter into force.

STRATEGIC OFFENSIVE REDUCTIONS TREATY (THE MOSCOW TREATY)

PURPOSE AND BACKGROUND

Entry into Force
June 1, 2003

Signatories/ Parties
United States and Russia

The Moscow Treaty [long title: Treaty Between the United States of America and the Russian Federation on Strategic Offensive Reductions] or SORT, was signed by Presidents Bush and Putin on May 21, 2002, during a Summit meeting held in Moscow. The Treaty obligates each party to reduce the number of operationally deployed strategic nuclear warheads to between 1,700–2,200 by December 31, 2012.

The U.S. Senate unanimously approved the Treaty by a 95-0 vote on March 6, 2003, and the Russian Federation Council approved it on May 14, 2003. The Treaty entered into force approximately two weeks later on June 1, 2003.

Potential Facility Impacts

Key Verification Measures

Although no verification regime or timetable for reducing strategic nuclear warheads are stated in the Moscow Treaty, use of verification measures implemented under the START Treaty, bilateral meetings, and annual reporting requirements provide a significant amount of transparency regarding each party's progress toward fulfilling their treaty commitments.

Using the verification measures and procedures employed under the START Treaty will enable the United States to remove certain strategic nuclear warheads from an "operationally deployed" status and to count these warheads as part of U.S. reductions. These warheads will continue to be subject to the verification provisions of the START Treaty unless the associated intercontinental ballistic missiles (ICBMs) or submarine-launched ballistic missiles (SLBMs) and their launchers are eliminated or converted in accordance with START procedures.

The Bilateral Implementation Commission (BIC) is an important forum established by Article III of the Treaty. Beginning in 2003, the BIC has been required to meet at least two times each year to discuss issues related to treaty implementation. The first meetings of the BIC were held on April 8-9 and October 14-15, 2004, in Geneva, to officially update each other on their efforts to implement the Treaty. According to a Bush Administration official, the meetings involved an exchange of broadly outlined reduction plans.

Another important forum is the Consultative Group for Strategic Security, which was established by the Joint Declaration on the New Strategic Relationship Between the United States and Russia, signed on May 24, 2002. The Consultative Group is chaired by Foreign and Defense Ministers and includes the broad participation of other senior officials. It is the principal forum where the United States and Russia work to:

- strengthen mutual confidence;
- expand transparency;
- share information and plans; and
- discuss strategic issues of mutual interest.

Finally, annual reporting requirements were mandated under Condition (2) of the U.S. Senate's resolution of March 6, 2003, providing its advice and consent to ratification of the Treaty. These requirements obligate the United States and Russia to report the following information:

- weapons force levels as of December 31 of the preceding year;
- strategic offensive reductions planned for the current year;
- plans for achieving required reductions by the Treaty deadline;
- measures taken or proposed to assure each party of the other's continued intent and ability to achieve the mandated reductions' deadline;
- information relevant to SORT Treaty implementation learned as a result of START verification measures, and the status of considerations for extending the START verification regime beyond December 2009;
- situations potentially calling into question the intent or the ability of either party to achieve required reductions by December 31, 2012; and
- actions taken or proposed to address concerns or improve Treaty implementation and effectiveness.

Current Activities

Recent Developments

In May 2005, the State Department released both classified and unclassified versions of its Annual Report on the Implementation of the Moscow Treaty, 2005. The report outlined U.S. plans for strategic offensive reductions and confirmed the United States' intention to:

- complete deactivation of all remaining Peacekeeper ICBMs;
- reduce warhead loading on a number of Minuteman III ICBMs; and
- reconfigure Trident II submarines to reduce the number of operationally deployed strategic nuclear warheads.

Specifically, the report stated that between 2005-2007 the United States plans to:

- retire 50 Peacekeeper ICBMs;
- remove four Trident submarines from strategic service;
- overhaul two of the remaining 14 Trident nuclear-powered submarines armed with long-range strategic missiles (SSBNs) to remove operationally deployed strategic nuclear warheads;
- discontinue the maintenance required to return B-1B heavy bombers to nuclear service; and
- reduce total operationally deployed strategic nuclear warheads to 3,500-4,000 by 2007.

The report also indicated that the United States intends to decrease operationally deployed strategic nuclear warheads on ballistic missiles and at heavy bomber bases. The U.S. strategic nuclear force posture described for 2012 includes:

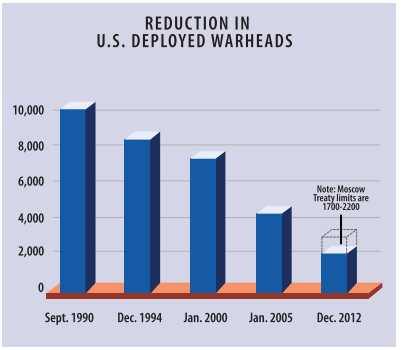
- 500 Minuteman III ICBMs;
- 14 Trident SSBNs;
- 76 B-52H bombers; and
- 21 B-2 bombers.

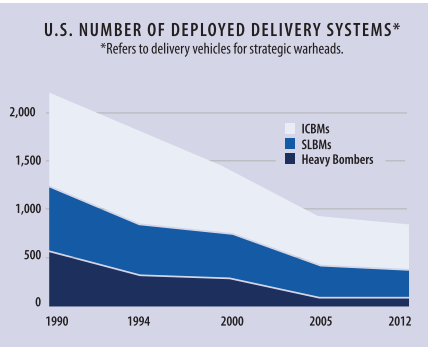
As of July 2006, U.S. strategic nuclear forces included:

	Number of Warheads
• 500 Minuteman III ICBMs	1,200
• 50 Peacekeeper ICBMs	500
• 144 Trident I SLBMs	864
• 288 Trident II SLBMs	2,304
• 142 B-52H bombers	997
• 81 B-1 bombers	81
• 20 B-2 bombers	20
Total warheads	**5,966**

As of July 2006, Russian strategic nuclear forces included:

	Number of Warheads
• 104 SS-18 ICBMs	1,040
• 138 SS-19 ICBMs	828
• 258 SS-25 ICBMs	258
• 42 SS-27 ICBMs	42
• 96 SS-N-18 SLBMs	288
• 80 SS-N-20 SLBMs	800
• 96 SS-N-23 SLBMs	384
• 20 RSM-56 SLBMs	120
• 14 Blackjack Heavy Bombers	112
• 64 Bear Heavy Bombers	512
Total warheads	**4,384**





Charts derived from the 2005 NPT Review Conference: U.S. Objectives brochure, U.S. Department of State publication 11247, April 2005.

TREATY ON CONVENTIONAL ARMED FORCES IN EUROPE

PURPOSE AND BACKGROUND

Entry into Force
July 17, 1992 (provisionally)
November 9, 1992 (legally)

Signatories/ Parties
Originally: 16 NATO and 6 Warsaw Pact States Parties

After the breakup of the Soviet Union, Czechoslovakia and the Warsaw Pact, membership increased to 30 States Parties.

The Treaty on Conventional Armed Forces in Europe (CFE) was designed to ensure stability and security in Europe. It established equal lower levels for five categories of offensive conventional armaments: battle tanks, armored combat vehicles, artillery, combat aircraft and attack helicopters. Since 1990, States Parties have destroyed more than 70,000 pieces of treaty-limited equipment (TLE) under the CFE Treaty and its associated documents, and have conducted thousands of on-site inspections.

On November 19, 1999, at the Organization for Security and Cooperation in Europe (OSCE) Conference in Istanbul, Turkey, the 30 States Parties to the CFE Treaty signed the Agreement on Adaptation of the Treaty on Conventional Armed Forces in Europe (Adaptation Agreement). The Adaptation Agreement amends the CFE Treaty to Europe's current security environment, as opposed to that existing during the Cold War.

Specific, noteworthy changes called for in the Adaptation Agreement include:

- raising quotas on mandatory on-site inspections;
- requiring States Parties to provide more information on their forces than they currently provide;
- replacing the CFE Treaty's obsolete bloc-to-bloc (NATO and the Warsaw Pact) structure with a new structure of national and flank limits on TLE and troop levels; and

- establishing a territorial ceiling on the total amount of equipment located on the territory of states within the CFE area of application. This will:
  - remove the requirement for new NATO allies to coordinate TLE limits with Russia and other former Warsaw Pact countries;
  - strengthen the territorial sovereignty of individual States Parties by setting limits on a state-by-state basis; and
  - preserve the special restrictions on forces, including Russian forces, in the Treaty's flank region.

The Adaptation Agreement also strengthens the requirement for host-nation consent to the presence of a foreign state's forces. This includes a provision for notifying all States Parties of such consent and addresses a fundamental security concern of several non-NATO states including Azerbaijan, Georgia, Moldova and Ukraine.

To facilitate routine training exercises or peacekeeping operations under the auspices of the United Nations or the OSCE, the Adaptation Agreement adds the Basic Temporary Deployments provision. This provision allows deployed forces to exceed treaty flank limits with advance notification.

The Adapted Treaty will enter into force 10 days after instruments of ratification have been deposited by all States Parties. Russia ratified the Adapted Treaty in July 2004. The United States is awaiting Russian troop withdrawal from Moldova and Georgia before submitting the Adaptation Agreement to the Senate for its advice and consent to ratification.

Potential Facility Impacts

Key Verification Measures

The Treaty's verification measures include:

- phased national reductions of TLE over 3 years (1992-1995);
- overall numerical limits on the five categories of conventional armaments within the Atlantic-to-the-Urals (ATTU) Zone;
- sublimits in geographic subzones;
- detailed national data exchanges and notifications on force structure and equipment holdings; and
- on-site inspections to verify compliance with numerical limits.

During the reduction period (1992-1995), on-site inspections permitted the Parties to witness the destruction of TLE, thereby promoting stability. Today, inspections continue to help CFE members verify the accuracy of each State Party's declared inventory of TLE. In addition, the extensive data exchanges among all States Parties allow the Parties to monitor each others' inventories and the movement of TLE within the ATTU Zone.

On-site inspections have been conducted under the CFE Treaty since 1992. As a result, U.S. Forces in Europe have developed an experienced and effective arms control security regime to protect sensitive information during inspections. Access provisions under the Treaty, specifically the right of access to areas beyond doors in excess of 2 meters, may give rise to security concerns. Sensitive facilities possessing such characteristics require the application of treaty-compliant protective measures.

Other potential security concerns during on-site inspection activities are the right to photography, including, in some cases, video photography and the use of aerial overflights. In addition, U.S. facilities collocated with the inspectable facilities of other States Parties may be vulnerable during inspections of host nation facilities.

Current Activities

Recent Developments

On November 9, 2004, during the biannual Joint Consultative Group (JCG) of CFE members in Vienna, Austria, Assistant Secretary of State for Arms Control Stephen Rademaker said the United States "stands firmly by the [1990] Treaty on Conventional Armed Forces in Europe and looks forward to the entry into force of the [1999] adapted CFE Treaty."

Russia ratified the Adapted Treaty in July 2004. Ratification by NATO Allies of the Adapted Treaty is awaiting Russia's fulfillment of its Istanbul summit commitments regarding withdrawals of Russian forces from Georgia and Moldova.

The Third Review Conference was held from May 30 – June 2, 2006 in Vienna, Austria. An agreement on a final document was not issued because consensus could not be reached on ratification of the Adapted Agreement. This ratification will not occur until Russian military deployments in Georgia and Moldova have ended.

Current levels of forces in Europe are as follows:

- under 25,000 for battle tanks;
- under 45,000 for armored combat vehicles;
- under 29,000 for artillery pieces:
- under 2,000 for attack helicopters; and
- under 8,000 for combat aircraft.

Also 20,000 items of equipment located east of the Ural Mountains have been disposed of and personnel have decreased to less than three million troops in agreed areas.

Inspection Status

More than 5,000 on-site inspections have been conducted since the CFE entered into force. Baseline inspections were completed on November 13, 1992, and the 3-year reduction period ended in November 1995. Residual validation inspections were completed in May 1996. Declared site and challenge inspections will continue for the life of the Treaty.

As of January 1, 2007, the United States had conducted a total of 275 inspection missions, 168 reduction inspections, and 134 escort missions. Escort missions were conducted to support U.S. facilities hosting inspection activities conducted by other States Parties. Of these total missions, the United States conducted 10 inspections, 0 reduction inspections, and 4 escort missions in 2006.

TREATY ON OPEN SKIES

PURPOSE AND BACKGROUND

Entry into Force
January 1, 2002

Signatories/ Parties
34 States Parties
33 Signatories
(Kyrgyzstan has not yet ratified)

Selected Members
United States and Russia

The Treaty on Open Skies is intended to strengthen peace, stability, and security among the participating states of the Organization for Security and Cooperation in Europe (OSCE) by mandating cooperative observation flights over the territories of the States Parties. Through the establishment of these confidence and security-building measures, the Treaty promotes greater transparency and openness in military activities "from Vancouver to Vladivostok."

The Treaty was negotiated between the members of NATO and the former Warsaw Pact beginning in 1989. The Warsaw Pact dissolved during the talks, and the Treaty was signed on March 24, 1992, at the Helsinki Conference on Security and Cooperation in Europe. Following the Treaty's entry into force (EIF) on January 1, 2002, any OSCE participating state not party to the Treaty may apply to the Open Skies Consultative Commission (OSCC), the Treaty's implementation organization, for consideration of their accession request.

Although the security environment has changed significantly since the Treaty on Open Skies was negotiated and signed, the Treaty continues to promote stability within the European security framework.

Potential Facility Impacts

Key Verification Measures

The Treaty on Open Skies provides States Parties with the right to fly over the entire territory of other States Parties to collect data using unarmed Open Skies aircraft equipped with treaty-compliant imaging sensors. These sensors include:

- video cameras;
- optical panoramic and framing cameras;
- infrared line-scanning devices; and
- sideways-looking synthetic aperture radar (SAR).

The observing party is obligated to provide a copy of the sensor data collected during the mission to the observed party. Other States Parties may purchase a copy of the data collected during any Open Skies mission. The amount of data available to each State Party is, therefore, much greater than the amount of data they would be able to collect individually.

The number of observation flights a State Party may fly over other States Parties is specified in the Treaty as the party's "active quota." A party's active quota is equal to its "passive quota," which is the number of observation missions the party is obligated to receive over its own territory. The United States' passive quota is 42 observation flights each year. However, no single State Party may use more than 50 percent of the United States' passive quota each year.

Within the States Parties' quota limitations and obligations, the observed party has no right of refusal and may not restrict observation flights for national security reasons. Flights may only be restricted for legitimate flight safety reasons or because the observed party's airfields are unable to support the mission.

The observing party is required to give the observed party at least 72 hours notice in advance of their estimated time of arrival at the point of entry (POE). Upon arrival, the observed party may conduct a pre-flight inspection of the Open Skies aircraft at the POE to verify that all equipment and sensors meet treaty specifications. At the POE, the parties will also negotiate the mission plan specifying the flight path the Open Skies aircraft will follow. The mission must be completed within 96 hours after the estimated time of arrival.

To be notified of impending observation flights, sites and facilities located in the United States may subscribe to the Open Skies advance notification system. This is a free service maintained by the Defense Threat Reduction Agency (DTRA). When subscribing, sites will need to provide only general information about their facility, such as facility name, point of contact, telephone numbers, and locational data. Locational data will need to include latitude, longitude, elevation, and geographic orientation.

For more information, or to subscribe to this service, contact your U.S. government sponsor or local Defense Security Service representative. You may also contact the Open Skies Division at DTRA by calling 1-703-767-0802. An Open Skies Data Management Facility registration form will be sent to you.

Current Activities

Recent Developments

To date, only Russia has expressed a desire to fly over the United States. Russia flew four observation missions over the United States in 2006, two in 2005, and two in 2004. In 2007, Russia is again planning to fly at least four observation missions.

In 2006, the United States flew six active observation missions plus five missions onboard other parties' aircraft. In 2007, the United States is planning to fly nine active observation missions, plus three additional missions onboard other parties' aircraft. These missions include an active mission flight over Russia planned for February 2007.

Russia's Open Skies aircraft is an unarmed TU-154. This aircraft is equipped with optical cameras and has been certified for use in the United States. The Russian observation team will negotiate the mission route and, as the observing party, may take images of U.S. territory at any point along the agreed flight path. The United States will receive a copy of the imagery collected during the mission and a U.S. escort team from DTRA will accompany the Russian team onboard the aircraft and throughout the mission.

Russia and other European States Parties continue to fly missions over each other's territory. In addition, the States Parties continue to participate in Joint Training Flights (JTFs), which began in 1993 to help treaty members prepare for full treaty implementation. In 2006, the United States conducted a JTF over Denmark.

In 2006, throughout the Treaty's entire area of application, the OSCC reported that the following activities were conducted:

- 115 observation flights;
- no new states applied for accession:
- the Informal Working Group on Sensors (IWGS) focused on making sensor procedures more effective, current, and relevant;
- the IWGS also focused on developing a Certification Decision to help clarify the process for certifying sensors; and
- agreement was reached at an expert meeting held October 5-6, 2006, on the distribution of quotas for 2007.

U.S.-IAEA SAFEGUARDS AGREEMENT

PURPOSE AND BACKGROUND

Entry into Force
December 9, 1980

Signatories/ Parties
United States and IAEA

The U.S.-International Atomic Energy Agency (IAEA) Safeguards Agreement (INFCIRC/288) [long title: Agreement Between the United States of America and the International Atomic Energy Agency for the Application of Safeguards in the United States of America] originated from concerns arising during negotiations of the Nuclear Non-Proliferation Treaty (NPT) in the 1960s. Non-nuclear weapons states (NNWS) argued that their industries would be at a competitive disadvantage relative to those in nuclear-weapons states (NWS).

The NNWS contended that they would have to pay for expensive verification measures, called safeguards, on their peaceful nuclear activities—and possibly compromise the development of their nuclear industries—while the NWS would incur no such costs. Safeguards were to be imposed by the IAEA to detect the diversion of nuclear material from peaceful uses to nuclear weapons or other nuclear explosive devices.

By the late 1960s, the safeguards issue had grown to become a serious obstacle to acceptance of the NPT by major industrialized NNWS. To remove this obstacle, in 1967, U.S. President Lyndon B. Johnson announced that the United States would not ask any country to accept safeguards the United States itself was unwilling to accept. Accordingly, the United States offered to permit the IAEA to apply the same safeguards it applies in NNWS to "all nuclear activities in the United States, excluding only those with direct national security significance."

This offer—often called the Voluntary Offer because the NPT does not require NWS to submit to IAEA safeguards—and a similar offer by the United Kingdom were instrumental in gaining acceptance of the NPT by major industrialized NNWS. Intended to provide the timely detection of the diversion of a significant quantity of nuclear material, IAEA safeguards utilize a comprehensive, integrated system of:

- accounting and reporting procedures;
- on-site inspections;

- nuclear material measurements; and
- containment and surveillance techniques.

Potential Facility Impacts

Key Verification Measures

Under the U.S.-IAEA Safeguards Agreement, the United States provides the IAEA with a list of facilities eligible for IAEA safeguards. (The list excludes those facilities with "direct national security significance.") All U.S. facilities selected by the IAEA under this Agreement are required to submit design information, receive IAEA inspectors to verify the information, maintain safeguard records, and submit safeguard reports to the IAEA.

Each listed facility negotiates a separate agreement with the IAEA regarding how the facility and the IAEA will apply safeguards, which depends primarily on the nature and size of the facility. As noted previously, the IAEA uses the same procedures it does in similar facilities in non-nuclear weapons states party to the NPT.

The primary security concern for the United States is the potential loss of classified and proprietary information to IAEA inspectors at privately and government-owned facilities. The source of concern is the level of access permitted during the implementation of IAEA safeguards.

Facility owners may participate in safeguard implementation negotiations at any privately-owned facility licensed by the Nuclear Regulatory Commission (NRC). The close cooperation of the facility manager is especially critical because the facility manager may use his/her knowledge of the plant and its operations to:

- help the IAEA identify efficient and effective measures to achieve inspection objectives; and
- cooperate with inspectors to facilitate the conduct of inspection-related measures.

By 1998, 214 NRC-licensed facilities and 36 DOE license-exempt facilities at 11 DOE sites were eligible for the application of IAEA safeguard inspections. (The United States notifies the IAEA whenever it removes or adds a site to the list.) In early 1981, the IAEA selected an initial complement of facilities at which safeguards, including inspections, were to be applied. Two operating commercial power reactors and one active commercial fuel fabrication plant were selected.

From 1981-1988, the IAEA selected different commercial fuel fabrication plants and power reactors for the application of safeguards at approximately 2-year intervals. From 1990-1993, the IAEA did not select any U.S. facilities due to budgetary constraints. In 1993, President Clinton announced that the United States would place under IAEA safeguards fissile material it considered beyond its defense needs. The initiative helped demonstrate transparency and the irreversibility of the dismantlement process, while underscoring U.S. support for the NPT. The IAEA resumed inspections in 1994 and is reimbursed by the United States for associated expenses.

At present, the following materials at the following four sites have been placed under IAEA safeguards and are inspected monthly by IAEA inspectors:

- highly enriched uranium (HEU) at the DOE Y-12 Plant at Oak Ridge National Laboratory in Oak Ridge, Tennessee (safeguards inspections are expected to end in 2005, after materials have been transferred to the Savannah River site);
- plutonium at the DOE Pacific Northwest National Laboratory - Hanford Site in Hanford, Washington;
- HEU at the DOE storage facility in Savannah River, South Carolina; and
- HEU transferred from Kazakhstan under Project Sapphire at the BWX facility (an NRC facility) in Lynchburg, Virginia.

Current Activities

Inspection Status

Safeguards are applied routinely at over 900 facilities in 71 countries. At a rate of more than 2,000 inspections annually, over 40,000 IAEA safeguards inspections have been conducted since 1980 at declared facilities in NNWS. In addition, a special inspection could be conducted anywhere in a NNWS should the IAEA Director-General decide information obtained from routine inspections is not sufficient for the IAEA to fulfill its responsibilities under its agreement with the state. This level of inspection activity is expected to continue indefinitely. In 2002 alone, safeguards activities included the verification of more than 52,000 tons of special fissionable material by more than 250 IAEA inspectors.

In the United States, over 250 civil nuclear facilities have been made eligible for IAEA safeguards inspection. These include a large number of power reactors and research reactors, commercial fuel fabrication plants, uranium enrichment plants, as well as other types of facilities. Currently, only four U.S. facilities are under IAEA Safeguards and are inspected monthly.

Since 2000, 21 NPT States Parties have concluded safeguards agreements with the IAEA. These include Cuba, Georgia, Kyrgyzstan, Laos, Niger, and Turkmenistan.

As of 2005, there are approximately 140,204 significant quantities (SQs) of nuclear material subject to safeguards.

U.S.-IAEA ADDITIONAL PROTOCOL

PURPOSE AND BACKGROUND

Entry into Force
Not in force

Signatories/ Parties
United States and IAEA

The U.S.-IAEA Additional Protocol [long title: Protocol Additional to the Agreement Between the United States of America and the International Atomic Energy Agency (IAEA) for the Application of Safeguards] is a follow-on agreement to the current U.S.-IAEA Safeguards Agreement (INFCIRC/288). The purpose of the Additional Protocol is to strengthen existing safeguards through better monitoring of peaceful nuclear activities in non-nuclear weapons States Parties to the Nuclear Non-Proliferation Treaty (NPT). The purpose of the U.S.-IAEA Additional Protocol is to demonstrate U.S. support for the safeguards regime and to assist the IAEA in developing the procedures, tools, and techniques that will strengthen the capability of the Agency to detect undeclared nuclear activities in non-nuclear weapons states (NNWS).

The need for additional safeguards measures became clear when nuclear weapons programs were discovered in Iraq and North Korea in the early 1990s. In May 1997, the IAEA's Board of Governors completed a Model Additional Protocol (INFCIRC/540) granting IAEA inspectors greater authority to monitor peaceful nuclear activities. Each NNWS is encouraged to sign a bilateral agreement with the IAEA based on the Model Additional Protocol.

As a nuclear-weapons state (NWS), the United States is not required to accept safeguards. However, the United States voluntarily accepts safeguards in order to demonstrate that NNWS will not be unfairly disadvantaged by being under safeguards, and to demonstrate U.S. support for the NPT. Like the U.S.-IAEA Safeguards Agreement, the U.S.-IAEA Additional Protocol applies to "all nuclear activities in the United States, excluding only those with direct national security significance."

Potential Facility Impacts

Key Verification Measures

The U.S. Additional Protocol expands the scope of what will be declared and grants greater authority to IAEA inspectors to visit more types of locations than the U.S.-IAEA Safeguards Agreement (Voluntary Offer Agreement).

Specifically, the Additional Protocol will allow IAEA inspectors to have access to all declared nuclear fuel cycle-related activities, not just to end-of-fuel-cycle facilities.

Nuclear fuel cycle-related activities include:

- mining/milling;
- waste treatment;
- government-owned and private facilities; and
- activities not involving nuclear material.

Declarations will be required for all nuclear fuel cycle-related activities and intrusive verification measures, such as environmental sampling, will be allowed. To resolve questions or inconsistencies, IAEA inspectors will also possess greater authority to examine "any place on a [declared] site" and "locations outside facilities" involved in fuel cycle-related activities.

Protective measures allowed under the U.S. Additional Protocol will include managing access and a stringent IAEA confidentiality regime. In addition, the U.S. Additional Protocol includes one other major provision that is unique to the United States' status as a nuclear weapon state: the "national security exclusion." Under this provision, the United States will apply, and permit the IAEA to apply, the provisions of the Protocol "excluding only instances where its application would result in access by the Agency to activities with direct national security significance to the United States or to locations or information associated with such activities."

The United States has the right to deny access or exclude inspection activities on the basis of the national security exclusion. Since the national security exclusion makes clear that the United States will have undeclared nuclear material and activities, both the United States and the IAEA, as well as IAEA Member States, recognize that inspections in the United States serve primarily the symbolic purpose of demonstrating U.S. commitment to safeguards and its willingness to accept the burdens their application may entail. In particular, the United States:

- will not provide to the IAEA information of direct national security significance to the United States or access to activities and locations of direct national security significance to the United States; and
- will exclude inspector activities that are inconsistent with the national security exclusion at a given location.

The national security exclusion, therefore, gives the United States the extraordinary legal means for preventing IAEA inspectors from having access to locations and information if required to protect activities having direct national security significance.

Current Activities

Recent Developments

On November 16, 2006, the U.S. Senate passed the United States-India Peaceful Atomic Energy Cooperation Act of 2006, which included the United States Additional Protocol Implementation Act. The Act is now awaiting Presidential signature.

Previously, on March 31, 2004, the Senate overwhelmingly consented to ratification of the Additional Protocol. The Additional Protocol will enter into force following the President's signature and deposit of the instrument of ratification.

As of December 2006, 112 countries had signed Additional Protocols with the IAEA. Of these, 78 have entered into force.

VIENNA DOCUMENT 1999

PURPOSE AND BACKGROUND

Entry into Force
January 1, 2000

Participating States
All (55) OSCE participating States

Selected Participating States
Canada, Belarus, Czech Republic, France, Georgia, Germany, Hungary, Kazakhstan, Moldova, Poland, Russia, Turkey, Ukraine, United Kingdom, United States

The Vienna Document of 1999 (VDOC99) is composed of politically-binding confidence and security-building measures (CSBMs). These measures are designed to promote mutual trust and security among the 55 participating States of the Organization for Security and Cooperation in Europe (OSCE). VDOC99 integrates a set of new CSBMs with measures previously adopted in successive predecessor documents: the Document of the Stockholm Conference of 1986, the Helsinki Document of 1992, and the Vienna Documents of 1990, 1992, and 1994. Each of these documents made progress, "in stages," toward achieving the OSCE's disarmament goals and enabling participating States to refrain from the threat or use of force.

The new measures incorporated into VDOC99 are intended to:

- limit a wider array of military activities;
- increase site visits, inspections, and observations; and
- promote further consultations and cooperation between participating States.

The CSBMs contained in VDOC99 focus on increasing openness and transparency with regard to the military activities conducted inside the OSCE's zone of application (ZOA). The ZOA consists of the whole of Europe and parts of Central Asia. It includes the territory, surrounding sea areas, and air space of all European and Central Asian participating States. In the case of the United States, only U.S. military activities conducted inside the ZOA are impacted by these CSBMs.

VDOC99 was adopted on November 16, 1999, at the OSCE Forum for Security Cooperation (FSC) plenary meeting in Istanbul, Turkey. The FSC is the multinational body responsible for overseeing VDOC99 implementation. It was created by the OSCE in 1992 and provides a forum where

representatives from the participating States discuss, negotiate and clarify matters related to CSBMs. The FSC meets weekly in Vienna, and hosts the Annual Implementation Assessment Meeting (AIAM).

The United States is committed to full compliance with all provisions of VDOC99. These include a wide variety of information exchanges, on-site inspections, evaluation visits, observation visits, and other military-to-military contacts. Some of the core CSBMs contained in VDOC99 are listed below:

- **Annual exchange of military information (AEI)** — exchanging information on command organization, personnel strength, and major conventional weapon and equipment systems;
- **Defense planning** — exchanging information on defense policy, force planning, budgets, procurements, and calendars;
- **Demonstrations of new major weapon systems or equipment** — arranging observation visits at military facilities;
- **Prior notification of certain (large-scale) military activities** — providing at least 42 days advance notice and, in certain cases, inviting observers;
- **Constraining provisions** — specifying limits on certain types of large-scale military activities;
- **Compliance and verification** — specifying participating States' rights and obligations with regard to on-site inspections and evaluation visits; and
- **Regional measures** — encouraging participating States to conclude additional agreements among themselves that are tailored to regional needs and complement VDOC99 measures.

Potential Facility Impacts

Key Verification Measures

VDOC99 allows participating States to conduct on-site inspections and evaluation visits for the purpose of confirming the accuracy of the information provided in formal information exchanges. Participating States are obligated to accept no more than three on-site inspections each year, and no more than one inspection from the same participating State. The participating State who requests the inspection may designate the area for the inspection. This "specified area" will comprise terrain where notifiable military activities are conducted or where another participating State believes a notifiable military activity is taking place.

The inspecting State may invite other participating States to be part of the inspection team; however, inspection teams are limited to no more than four inspectors. The maximum time allowed for inspection activities is 48 hours. The period of inspection begins when the inspection team arrives at the specified area. The inspection team will have access to the specified area either by ground or air or both, except for areas or sensitive points where access is normally denied or restricted.

Evaluation visits are shorter and less intrusive than inspections. Each visit must be completed during a single working day and there is no requirement for the host State (receiving State or stationing State) to provide access to sensitive facilities and equipment. Evaluation teams may consist of no more than three members and are obligated not to interfere with the activities of the formation or unit being visited. The maximum number of evaluation visits a participating State could be obligated to accept is 15 per year.

Current Activities

Recent Developments

Delegates to the 16th Annual Implementation Assessment Meeting (AIAM), held March 7-8, 2006, in Vienna, Austria, focused on improving implementation of the CSBMs established by Chapter XI. The 17th AIAM is scheduled for March 6-7, 2007.

Inspection Status

Since 1992, an average of four inspections and evaluation visits has been conducted each year at U.S. facilities located within the ZOA.

CONCLUSION

This pamphlet has provided a brief overview of the purpose, status, and security challenges associated with implementing current and emerging arms control treaties and agreements. It has also reviewed important legacy treaties that have led us to where we are today in the world of arms control and threat reduction.

To obtain more information about arms control security and treaty implementation, please contact the DTIRP Outreach Program Coordinator at 1-800-419-2899, or by email at dtirpoutreach@dtra.mil. You may also contact your local Defense Security Service (DSS) Industrial Security Representative or your government sponsor.

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